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MAY 1 1974

ENVIRONMENTAL IMPACT STATEMENT

PURSUANT TO

MONTANA ENVIRONMENTAL POLICY ACT SEC. 69-6504

MONTANA

RABID SKUNK CONTROL

EMERGENCY

PREPARED BY

STATE OF MONTANA

DEPARTMENT OF LIVESTOCK

BRANDS-ENFORCEMENT DIVISION

HELENA, MONTANA

MAY 21, 1973

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MILES CITY

ROBERT M. SIMONS
TURNER

HELENA, MONTANA 59601
AC 406 449-2044

May 21, 1973

David D. Dominick
Environmental Protection Agency
Washington, D. C. 20460

Dear Mr. Dominick:

In accordance with Section 18 of the Federal Environmental Pesticide Control Act, the Montana Department of Livestock, Brands-Enforcement Division does hereby respectfully request permission to use strychnine eggs in seven Northeastern Montana Counties for Rabid Skunk Control effective immediately and lasting through December 30, 1973.

The enclosed impact statement has been prepared by the Montana Department of Livestock, Brands-Enforcement Division in compliance with the Montana Environmental Policy Act, Section 69-6504.

Very truly yours,

Wm. G. Cheney

Wm. G. Cheney, Admr.
Brands-Enforcement Division
Department of Livestock

Enclosure

STRAIGHT WIRE

The following telegram was sent May 17 to:

David A. Dominick
Attention: John Rich
Environmental Protection Agency
Washington, D. C. 20460

Skunk rabies crisis exists in seven-county area of northeastern Montana. Marked increase supported by positive findings. One youngster attacked and skunk diagnosed as rabid. Have experienced sixteen cases reported rabid skunks so far this year, compared to five in all of 1972. Area to north in Canada reports 250 to 600% increase.

Area of need Sheridan, Blaine, Hill, Valley, Daniels, Roosevelt, Phillips counties. Urge support of request to EPA for strychnine baits in area described to be used in immediate vicinity of farms and ranches where rabid skunks diagnosed. Request supported by State Department of Health and Environmental Sciences and Board of Livestock

THOMAS L. JUDGE
Governor

cc: Honorable Mike Mansfield
Honorable Lee Metcalf
Honorable John Melcher
Dr. John Anderson
Mr. Fletcher Newby
Mr. Bill Cheney
Dr. William Winkler
Chief, Rabies Control Unit
Center for Disease Control
Box 363
Lawrenceville, Georgia 30245

TELEGRAPHIC MESSAGE

May 18, 1973
9:00 a.m.

TO: David D. Dominick
Environmental Protection Agency
Washington, D. C. 20460

Attention: John Rich

FROM: John S. Anderson, M.D., Director
Department of Health & Environmental Sciences
Helena, Montana 59601

And

J. W. Safford, D.V.M., State Veterinarian
Department of Livestock
Animal Health Division
Helena, Montana 59601

Respectfully request permission for Montana Department of Livestock, state department responsible for predator and rabies control, to use strychnine baits for control skunk rabies in specific 3 mile radius from site of positive skunk collection in seven northeastern Montana Counties, Hill, Blaine, Phillips, Valley, Daniels, Roosevelt, Sheridan, effective immediately and through December 31, 1973.

One farm child bitten yesterday and 18 rabid skunks taken since March 25 compared to 5 in 1972. Adjacent Saskatchewan areas have two to eight times increase rabid skunks this year compared to 1972 and no formal control program.

Approximately 800 eggs injected with green stained half grain strychnine solution per egg per rabid skunk location distributed and retrieved by state technically trained supervised personnel on private lands accessable by signed owner aggreements. Baits stamped poison and premises posted with warning signs.

Studies conducted recently in control area demonstrate eggs may be taken by ground squirrels, wild house cats, porcupines, fox, magpies, badger and norway rats. A diminutive short term effect may occur on these non-target species with no long term effect anticipated.

Trapping and shooting programs initiated March 30 with trained personnel provided unsuccessful containment as cases multiply in program and adjacent areas with resultant anxiety in resident population concerned with human and livestock health.

Public officials sorely pressed to return to toxicant bait program used since 1964 and until interrupted by EPA cancellation of strychnine registration.

CC: Hon. Mike Mansfield
Hon. Lee Metcalf
Hon. Richard G. Shoup
Hon. John Melcher
Governor Thomas L. Judge
Dr. John Winkler

DEPARTMENT OF LIVESTOCK
BRANDS-ENFORCEMENT DIVISION

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CHOTEAU

ROBERT G. BARTHELMESS
MILES CITY

ROBERT M. SIMONS
TURNER

May 11, 1973

The Honorable Thomas L. Judge
The Governor of Montana
State Capitol Building
Helena, Montana 59601

Dear Governor Judge:

Enclosed for your review is an Environmental Impact Statement for the proposed "Montana-Rabid Skunk Control Emergency."

The enclosed Environmental Impact Statement has been prepared by the Montana Department of Livestock, Brands-Enforcement Division in compliance with the Montana Environmental Policy Act, Section 69-6504.

The Board of Livestock, at a meeting held in Helena on May 1, 1973, directed the Administrator of the Brands-Enforcement Division to prepare this Impact Statement.

Very truly yours,

Wm. G. Cheney

Wm. G. Cheney, Admn.
Brands-Enforcement Division
Department of Livestock

I. DESCRIPTION OF PROJECT

A. TITLE: Rabid Skunk Control

B. PURPOSE: The purpose of this rabid skunk control program is to prevent exposure of domestic animals and man from rabid skunks, thereby preventing domestic animals and human death due to rabies and the need for post-exposure human antirabies treatment. Once clinical signs of rabies infection develop in a person or animal, death is inevitable.

C. OBJECTIVE: The objective is to reduce the striped skunk populations within the immediate vicinity of farms and ranches where rabid skunks have been diagnosed.

D. LOCATION: Seven Northeastern Montana Counties: Hill, Blaine, Phillips, Valley, Daniels, Roosevelt and Sheridan.

E. SPECIFIC AREA: Designated skunk habitat within a three mile radius where rabid skunks are diagnosed.

F. VECTOR SPECIES: Striped Skunk

G. REDUCTION METHOD: Strychnine Eggs

1. Formula: For treating 100 eggs with 1cc. of solution per egg.

66 2/3 cc. Water
33 1/3 cc. Vinegar
1/8 oz. Strychnine Alkaloid
8 or 10 drops of green food coloring

Vinegar is added to dissolve Strychnine Alkaloid.

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2. Preparation of Eggs: With a hypodermic syringe insert the needle at the large end of the egg which contains the air sack. Remove the needle and insert the second time in order to enlarge the first hole through the shell and air sack membrane. The hole in the shell should be two or three times larger than the needle for air and egg white to escape. If this is not done the egg will crack open. Egg white over the hole will seal in a short time. Inject approximately 1 cc. of solution into the yoke of each egg. One cc. of this solution will contain approximately 1/2 grain of strychnine which is sufficient for skunk.

A rubber poison stamp and red stamp pad is used to mark each egg. Solution containers will bear appropriate labels, setting forth the following items:

a. Percent of active and inert ingredients
b. Skull and crossbones
c. Directions for use
d. Safety considerations
e. Methods of treating strychnine eggs

H. PLACEMENT: A maximum of 500 strychnine eggs may be placed in designated skunk habitat within a three mile radius where rabid skunks are diagnosed.

I. DESIGNATED SKUNK HABITAT: A maximum of two strychnine eggs per setting may be placed in the following skunk habitat.

1. Skunk dens
2. Holes
3. Garbage dumps
4. Road culverts
5. Rock piles
6. Under non-occupied buildings

J. RETRIEVAL OF EGGS: Eggs remaining after a 30 day period from date of placement will be collected and destroyed.

K. PREMISE ENTRY AGREEMENT: Strychnine eggs may be placed only on those lands where premise entry agreements are signed by the landowner, leasee or administrator.

L. WARNING SIGNS: Warning signs will be posted at entries to all premises and other visible positions near locations of placed,treated eggs.

M. PERSONNEL: The Environmental Coordinator, Department of Livestock, Brands-Enforcement Division, will supervise the control program. State trappers

will be technically trained to prepare, place and retreive strychnine eggs.

N. LICENSING: All State Supervisory Department of Livestock personnel will be licensed as pesticide applicators in accord with the Montana Pesticide Control Act.

O. DURATION OF CONTROL PROGRAM: This program would be in effect immediately and last through December 30, 1973.

II. RABIES IN STRIPED SKUNKS

A. DISEASE: Rabies

B. CAUSE: Rabies is a viral infection of the central nervous system causing death in all warm blooded animals, including man.

C. ANIMALS AFFECTED: Animals found rabid in Montana have been dogs, domestic cats, cattle, skunks, bats, badger and sheep. (See Page 26 - 28)

D. TRANSMISSION: Rabies in skunks is usually transmitted from animal to animal and to man by the bite of an infected skunk with introduction of rabies virus into the bite wound via infected saliva. The rabies virus reaches the central nervous system from the site of the bite wound via nerve pathways. Upon reaching the brain, the virus travels outward invading the salivary glands where

it replicates and is excreted with the saliva into the mouth of the ill animal, thereby making possible further transmission to another susceptible host. The presence of rabies virus in the brain is responsible for the clinical signs and symptoms shown in the disease. Virus usually does not appear in the saliva of an infected animal until shortly before the onset of clinical symptoms of illness.

E. INCUBATION PERIOD: The incubation period, time from exposure to onset of clinical illness, can range from as short as 10 days to over six months. All skunks usually die once clinical symptoms of rabies appear. The extremely long and variable incubation period enables the disease to exist in an area for considerable periods of time while requiring only a few infected skunks for survival.

F. EPIDEMIOLOGY: Rabies in skunks may occur in long - term cycles, extending over many years and covering large geographic areas, which alternate with long periods of apparent freedom from the disease. Study of the ecology of rabies in various parts of Montana suggests that in certain regions, sporadic cases of the disease occur in striped skunks at fairly frequent intervals. During the 10 years (1964-73), a total of 63 rabid skunks

were diagnosed in Montana. An evaluation of two rabid skunk cases in Sheridan County in March through April 1973, showed 16 percent of the skunks shot or trapped had rabies.

Therefore, it would seem safe to hypothesize that for each rabid skunk diagnosed, others are still in the immediate vicinity, of the reported case. The cycles of rabies which affect areas from time to time may be made up of numerous localized epidemics which shift from area to area. Local areas affected may vary from large to small and those affected at any one time vary from year to year. The rabid skunk cycle of rabies may constitute a continuing source of infection for wild animal species not involved in maintaining the disease in an area and for domestic livestock, pet animals and directly and indirectly for man.

G. HEALTH, ECONOMIC AND SOCIAL IMPACT: Since 1964, approximately 17 people have taken anti-rabies vaccine treatment from exposure, either directly or indirectly by rabid skunks.

Although seven domestic animals have died and no human deaths have occured from rabid skunks, there exists the obvious health and social impact upon the human community.

Funding for rabid skunk control has amounted to $65,326.99 (See page 29) since 1964, which does not account for the cost of livestock losses reported or not reported monies spent by individual citizens and communities in assisting with rabid skunk control.

III. NATURE, SCOPE AND FREQUENCY OF SKUNK RABIES

A. NATURE: Occurrence of rabid skunks is an endemic problem of eastern Montana. It is not known how long rabid skunks have been present in Montana. The first laboratory confirmation in the state was made in Fallon County on April 21, 1964. Since the first reported incident, a total of 63 rabid skunks have been diagnosed with all but four cases being located in eastern Montana counties (See page 24)

B. SCOPE: Because no other species of mammal appear to be involved in the epizootic of rabies in striped skunks in eastern Montana 1964-73, skunks alone are responsible reservoirs for the disease. These reservoirs may have stemmed from endemic skunk rabies areas of Saskatchewan and North and South Dakota. Records available from the Animal Health Division, Department of Livestock, indicate the range and distribution of rabies since 1964, were widely scattered in time and space. The introduction of skunk rabies into Montana parallel the frequency and distribution or migration of skunk rabies in Saskatchewan and the Dakotas.

"Spillover" from these areas still seem to prevail in the scope of skunk rabies in Montana. No skunk rabies cases have been diagnosed in the western half of Montana.

C. FREQUENCY: Rabies in striped skunk have been diagnosed in each month of the year since 1964, however, the majority of cases have occurred during March, April May and June (See Page 25) During the first four and one-half months of the calandar year 1973, 19 rabid skunks have been diagnosed. This increase in rabid skunk findings over any other year may be due to increased skunk populations, increased sighting and surveillance due to more people participating in outdoor recreation, cyclic pattern of the disease, reduced skunk control because of the federal ban on toxicants or increased number of skunks submitted as a result of trapping instead of previous control procedures.

IV. RABID SKUNK CONTROL 1951 - 1972

A. INITIAL ACTION: Skunk population reduction programs have been conducted in eastern Montana counties beginning in 1951. Richland and Wibaux counties adjacent to the North Dakota border, were systematically treated to prevent rabies from entering the state. This program was coordinated between

the Department of Livestock, State Fish and Game Commission and Bureau of Sports Fisheries and Wildlife.

Skunk rabies was anticipated in Montana as early as 1951 along the Montana - Dakota - South Dakota borders. In 1958-59, there were 47 laboratory diagnosed cases of skunk rabies in North Dakota and 54 cases in South Dakota. Five of these cases in North Dakota occurred in counties bordering Montana. The first reported occurrence of skunk rabies in Montana occurred April 21,1964 in Fallon County. The Bureau of Sports Fisheries and Wildlife initiated a skunk population suppression program in this area. Fallon County provided two employees to assist the Bureau with said program. No additional rabid skunk cases occurred in areas worked. Skunk population reduction programs were continued in these areas of rabid skunk findings under the supervision of the Bureau of Sports Fisheries and Wildlife in Fallon, Carter, Powder River, Dawson, Roosevelt, and Sheridan counties up to July 1, 1966, with no re-occurrence of rabid skunk cases in areas worked. Personnel of the Bureau and county agencies performed the field work. Counties involved: Carter, Fallon, Dawson, Wibaux, Powder River and Valley. Materials used: strych-

nine drop baits, strychnine treated eggs, gas cartridges and carbon bisulfide. The objective of these previous programs was to effectively reduce the susceptible skunk population and suppress local spread by breaking the chain of infection.

B. CONTAINMENT ZONE: A Governor's Advisory Committee on rabies was organized in May of 1966. Members were representatives of the Montana Livestock Sanitary Board, Montana Fish and Game and the Bureau of Sports Fisheries and Wildlife. At early Committee meetings, they adopted recommendations that a skunk reduction program be conducted in an area approximately three mile radius from the site where a positive rabies case was found. It was intended that skunk rabies control would be achieved when population numbers were reduced to a point that animal to animal contact would be unlikely. Later in 1966, after a study of terrain, the committee recommended an extensive buffer strip as a containment zone at the western limit of the area in which positive skunks had been found.

The area selected was approximately 170 miles long following watershed divides as much as

possible in portions of Powder River, Carter, Custer and Prairie counties. The Committee designated this zone to be from two to five miles wide. The containment action zone was to prevent chances of infected animals or carriers from spreading the disease to other portions of the state. Supervision was under the responsibility of the Bureau. Material used were strychnine treated lard baits, strychnine treated eggs, gas cartridges and carbon bisulfide. This project was completed in November 1966.

C. LEGISLATIVE APPROPRIATION: The Governor's Advisory Committee on Rabies Control established in 1966 was discontinued in 1967 when the state legislature (1967) appropriated funds ($25,000) to the Livestock Commission for rabies suppression during fiscal years 1968-69. New procedures were adopted due to the change in financial arrangements for rabies suppression program. The procedures were as follows: Suspected rabid animals were confirmed by the Livestock Sanitary Board Diagnostic Laboratory at Bozeman; the Department of Health and/or the Livestock Sanitary Board determined the need for rabies suppression work; the Fish and Game Department reviewed the problem and made its recommendations to the Livestock Commission;

the Livestock Commission decided whether to proceed with a suppression program. If a suppression program was carried out, the Bureau of Sports Fisheries and Wildlife determined the control methods and extent of the area. These decisions were based upon size of the area, human population, skunk habitat, terrain and other factors. From 1967 to February 8, 1972, the rabies control program operated in the manner mentioned above, without legislative appropriations, and with more specific control area classification within a three mile radius of a positively diagnosed rabies case involving skunks as the vector species.

D. CURRENT POLICY: The President's Executive Order 11643 (Feb. 8, 1972) "Environmental Safeguards on Activities for Animal Damage Control on Federal Lands" withdrew the Bureau of Sports Fisheries and Wildlife supervisory capacity in the Montana Rabies Control Program if toxic baits were used. The Montana Livestock Board on December 13, 1972 passed a new policy on rabid skunk control. This policy is set forth below: The Department of Livestock abandoned a predetermined skunk reducation program of a fixed area perimeter and using toxicants. The skunk reduction program shall be accomplished by trap-

ping and shooting in an area whose perimeters shall be determined in relation to the location of a rabid skunk by the Department's Biologist. In the event that this program does not prove adequate to protect animals and man from undue exposure to rabies, then upon the determination of the State Veterinarian that a rabies emergency does exist, toxicants will be employed to effectuate the skunk reduction program in the area selected by the Biologist.

E. FUNDING: Funding sources for rabid skunk control during Fiscal Year 1964-73 have been derived from the Department of Livestock, State Fish and Game, counties, Bureau of Sports Fisheries and Wildlife and Livestock Sanitary Board. A complete breakdown by fiscal year expenditure is depicted on (Page 29).

V. RABID SKUNK CONTROL - CALANDAR YEAR 1973

A. INITIAL CAUSE: On March 25th and 28th, 1973, two rabid skunks entered the farm yards of Harold Brensdal (Pages 30-31) and Ed Heisler, (Pages 32-33) respectively, in Sheridan County. Both cases involved a rabid skunk chasing the family dog and later being shot by the land owner. An initial investigation of the two

rabies cases by methods by systematic time interval driving, trapping and placing the county "on call" for citizens to report any strange or suspicious acting wildlife or domestic animal was conducted from March 30th to April 12, 1973. Eight skunk were taken in the Heisler area, none had rabies. Nine skunk were taken in the Harold Brensdal area, four had rabies. (Pages 34-35. The conclusion was made that the relative population of striped skunk were similar in both areas, but that it appeared that striped skunk in the Harold Brensdal area may be infected to a higher degree with the rabies virus. 44.4 percent of the skunk taken in the Brensdal area were diagnosed as rabid.

B. TRAPPING PROGRAM: A recommendation was made and accepted that a trapping program for striped skunk be conducted in the immediate areas surrounding the Heisler and Brensdal farms. The purpose of said trapping program was (1) to reduce the skunk population in the immediate areas of the Heisler and Brensdal farms (2) to determine the percentage of skunk caught in traps to have rabies and (3) to determine what trap sets in different skunk habitat are most successful.

The trapping program was conducted from April 10th to April 27th, 1973 through a joint effort of the Department of Livestock and Bureau of Sports Fisheries and Wildlife. Nine skunk were trapped in the Heisler area, one being rabid while eleven skunk were trapped in the Brensdal area, one being rabid. During the trapping program, three additional rabid skunks entered farm yards in Sheridan County chasing either the family dog, cattle or the land owner. Since these additional rabies cases were not in the immediate vicinities of the Heisler-Brensdal farms, it became more evident that rabid skunks may be distributed over the entire county.

C. EMERGENCY MEASURES RECOMMENDED: Within one month eleven rabid skunk were found in Sheridan County. This prompted Dr. John S. Anderson, Department of Health and Environmental Sciences and Dr. J.W. Safford, Department of Livestock, Animal Health Division to recommend emergency measures (Page 37) be taken, by the most effective method possible, to immediately reduce the rabies vector animal population (striped skunk) to provide maximum protection to both man and animals from exposure to rabies in Sheridan County. The use of strychnine eggs to reduce skunk populations in the im-

mediate vicinity of farms and ranches where a rabid skunk is found was recommended, but could not be immediately implemented until information necessary for Environmental Protection Agency officials was prepared. Therefore, funds for an accelerated trapping program were requested (Page 38-40) for temporary emergency protection.

D. NINETEEN RABID SKUNKS: Since the emergency trapping program was implemented in Sheridan County, eight (8) additional rabid skunks have been diagnosed; two in Blaine County, one in Daniels, and five in Sheridan - one involving a rabid skunk biting a two year old boy. This now makes a total of 19 rabid skunks in Montana as of May 21, 1973, located in ten different locations over three counties. Saskatchewan authorities have indicated an increase of two to eight times the number of rabid skunk cases along the Montana border compared to last year. Therefore, the Department of Livestock requested the Environmental Protection Agency's permission to use strychnine baits.

E. COST: At a cost of $2,026.16 (Page 41) to trap skunks in two of these rabies areas for 17 days,

an additional $8,000.00 would be needed to trap the other five locations. A request (Page 40) for $3,634.84 was made to the Governor of Montana after Dr. J. S. Anderson, Department of Health and Environmental Sciences and Dr. J. W. Safford, Department of Livestock, Animal Health Division made the emergency request (Page 37) for Sheridan County. These funds will handle three rabies areas in Sheridan County only. Funds necessary to provide additional rabid skunk control in Blaine and Daniels Counties, plus future cases in Sheridan County are not available at this time. It becomes very obvious if rabid skunk control is continued by trapping and shooting methods, the cost will greatly increase per rabid skunk case compared to the use of strychnine eggs.

VI. ENVIRONMENTAL IMPACT

A. PROBABLE ADVERSE ENVIRONMENTAL EFFECTS: No irreversible adverse environmental effects have occurred or are anticipated as a result of using strychnine eggs in a rabid skunk control program. There are no established, detrimental effects on humans or their

immediate environment. Strychnine eggs will be used with such care, in such small quantities, and under such rigid regulation that any adverse environmental effects are extremely unlikely. Strychnine eggs do not persist in the food web. After 10 years of usage in Montana, no significant adverse environmental effects are known nor are they suspected. The number of target and non-target species taken has not affected the capacity of any species to perpetuate itself; in fact, the principal target species (striped skunks) has maintained or has extended its range.

B. RELATIONSHIPS BETWEEN LOCAL SHORT-TERM GAINS OR USES AND MAINTENANCE OF LONG-TERM PRODUCTIVITY: The method employed may result in short-term reduction in specified striped skunk populations for both short-term economic gain and immediate public health and social benefit. In no event will rabid skunk control programs be detrimental to the long-term benefit of the environment.

C. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES: No irreversible or irretreivable environmental actions will be undertaken. The program has not and will not result in any significant reduction in the range of beneficial uses, nor will it permanently reduce animal numbers to the point of eliminating human

enjoyment of the target species - striped skunks. While the numbers of individual skunks may be reduced in certain specified areas where there is a critical need for reduction, corollary protective actions in uncontrolled areas assure maintenance of the species for beneficial uses. An evaluation of non-target species which attempt to take, eat or investigate a placed non-strychnine egg in different skunk habitat was conducted in Sheridan County April 4-27, 1973. Non-target species taken during the 1,824 trap-nights is shown on Page 36 . Specific placement of strychnine eggs in designated skunk habitat (skunk dens, holes, garbage dumps, road culverts, rock piles and under non-occupied buildings) in substitution of the trapping program will produce less take of non-target species. Due to the designated placement of strychnine eggs and evaluation of the number of each non-target species which may eat a strychnine egg, only a diminutive short-term effect upon the relative population of any non-target species may occur. No long-term effect is expected.

D. AIR: The use of strychnine eggs should cause no short-term or long-term detrimental effects concerning air quality.

E. WATER: Strychnine alkaloid is almost insoluble in water and is quite stable. Formulations are expected to remain effective as long as the treated eggs remain placed. For this reason, treated eggs not consumed are collected and destroyed. Due to the limited amount of strychnine alkaloid injected into an egg (one- half grain) and the limited number placed per specific location (not near water) the detrimental short-term or long-term effects of water quality should be non-existant.

F. SOIL: Strychnine alkaloid is almost insoluble in water, however, it is soluble, to varying degrees in dilute acids from which salts are formed that have limited solubility in water. With the small amount of strychnine per egg (one - half grain) no adverse effect to soil will occur on a short-term or long-term basis.

G. VEGETATION: By the nature of the chemical, strychnine alkaloid, and the small amount in each egg, it will have no environmental effect on vegetation.

VII. OTHER ALTERNATIVES

A. NO RABID SKUNK CONTROL: The obvious alternative is "no rabid skunk control." This is not desirable because it implies no protection for domestic

animals and man from rabies and would abdicate governmental responsibility.

B. BUREAU OF SPORTS FISHERIES AND WILDLIFE PROGRAM: The next alternative for state action would be to have the same program supervised by the Bureau of Sports Fisheries and Wildlife as in the past. This is not possible due to the February 8th Executive Order - Environmental Safeguards on Activities for Animal Damage Control on Federal lands. The Bureau cannot use strychnine lard baits in rabid skunk control.

C. PRIVATE INDIVIDUALS: If the alternative of turning responsibility over to private individuals were chosen, there is a strong likelihood of increased exposure to rabies and biologically unsound control of rabid skunks on a prophylatic basis resulting in permanent adverse effects, to both wildlife and the environment in general. Control by private individuals has proven to provide the least effective beneficial results and has been the least discriminating in its application.

D. RESEARCH: Alternative methods of Federal and State coordinated rabid skunk control have been explored. These methods include habitat manipulation, biological controls, and other means. Whenever a satisfactory alternate method is developed and is available and practical, it will be employed. Presently there are no new methods. Montana's 43rd Legislature

passed Senate Joint Resolution No. 26 asking the Congress and the President to provide funds for rabies research (Page 43-46)

E. TRAPPING: Another alternative would be to continue trapping skunks in the immediate vicinity of a rabid skunk case. Recent trapping programs in the Sheridan County area have presented an increased potential of people, especially children, to become directly exposed to possible rabid animals. A case in point was a young boy attempting to release a wild house cat from a trap near an abandoned building. The boy was bitten and the cat escaped. Luckily the cat was found four days later and diagnosed negative for rabies, but not until the boy received four anti-rabies shots. Further concern for a trapping program is sighted on Page 42.
In addition, trapping programs have proven not only to be ineffective, but also costly. Therefore, trapping should only be continued if other control methods cannot be utilized.

VIII. SUMMARY STATEMENT

The ecological impact of skunk rabies is very complex. Any control program should be based on the best available information supplemented by new findings

as they become available. Strychnine eggs placed in designated skunk habitat within a three mile radius where rabid skunks are diagnosed is presently the best method available to protect domestic animals and man (directly or indirectly) from skunk rabies.

It is therefore requested that the Montana Department of Livestock, Brands-Enforcement Division, be granted permission under Section 18 of the Federal Environmental Pesticide Control Act to use strychnine eggs in seven Northeastern Montana Counties for Rabid Skunk Control effective immediately and lasting through December 30, 1973.

1965 3 | 1966 14 | 1968 7 | 1970 1 | 1972 5 | 1973 19

No. 1052 — County Outline Map
STATE PUBLISHING COMPANY
Helena

80 Parts - E - WY

POSITIVE RABID SKUNK CASES

CALENDAR YEAR	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL
1964				2 Skunk			1 Skunk				1 Skunk	1 Skunk	5
1965	2 Skunk											1 Skunk	3
1966	1 Skunk	3 Skunk	2 Skunk	7 Skunk	1 Skunk								14
1967					1 Skunk	1 Skunk		1 Skunk					3
1968					2 Skunk	4 Skunk			1 Skunk			1 Skunk	8
1969	1 Skunk	1 Skunk	1 Skunk			1 Skunk							4
1970												1 Skunk	1
1971						1 Skunk							1
1972						1 Skunk	2 Skunk	2 Skunk					5
1973			2 Skunk	11 Skunk	6 Skunk								19
TOTAL	4	4	5	20	10	8	3	3	1		1	4	63

Information Collected Diagnostic Laboratory-Bozeman

DISEASE RABIES

NAME	CITY OR TOWN	COUNTY	VETERINARIAN OR PHYSICIAN REPORTING	SPECIE	DATE SPECIMEN FORWARDED TO DIAG. LAB.	DIAG. LAB ACCESSION NUMBER
edicine Rocks Ranch.....	Willard.....	Fallon.....	Aby.....	Skunk.....	4-21-64.....	6-136
rs. Jessie Steig.....	Plevna.....	Fallon.....	Flora.....	Skunk.....	4-22-64.....	6-140
arry Turbeville.....	Yarmouth, M. D....	.....	Flora.....	Skunk.....	7-6-64.....	6-248
. R. Cunningham.....	Miles City.....	Custer.....	Flora.....	Bat.....	7-20-64.....	6-267
rs. Ben Hanson.....	Terry.....	Prairie.....	Flora.....	Bat.....	8-3-64.....	6-312
ickey Hay.....	Miles City.....	Custer.....	Flora.....	Bat.....	9-8-64.....	6-319
eo Barkley.....	Baker.....	Fallon.....	Stoddard.....	Skunk.....	11-12-64.....	6-396
ren M. Steig.....	Ekalaka.....	Carter.....	Flora.....	Skunk.....	12-14-64.....	6-427
e Kartum.....	Ekalaka.....	Carter.....	Stoddard.....	Skunk.....	1-11-65.....	6-11
rtin O'Connor.....	Baker.....	Fallon.....	Stoddard.....	Skunk.....	1-21-65.....	6-24
rtin O'Connor.....	Baker.....	Fallon.....	Stoddard.....	Calf.....	2-17-65.....	1-373
nneth Tonn.....	Belgrade.....	Gallatin.....	Sippel.....	Bat.....	10-11-65.....	6-317
eta Herigstad.....	Hodges.....	Dawson.....	Dyekman.....	Skunk.....	12-20-65.....	6-413
ck Pankrantz.....	Larslan.....	Valley.....	Connell.....	Skunk.....	1-11-66.....	6-8
x Hickman.....	Glendive.....	Dawson.....	Dyekman.....	Skunk.....	2-1-66.....	6-31
Miner.....	Richland.....	Valley.....	Newman.....	Skunk.....	2-4-66.....	6-36
rrvick.....	Wolf Point.....	Roosevelt.....	Hopson.....	Skunk.....	2-25-66.....	6-61
Petty.....	Plevna.....	Fallon.....	Stoddard.....	Skunk.....	3-22-66.....	6-110
eriff's Office						
E. Sparks, Pine Cr....	Baker.....	Fallon.....	Stoddard.....	Skunk.....	3-30-66.....	6-124
rb Schell.....	Plevna.....	Fallon.....	Stoddard.....	Skunk.....	4-12-66.....	6-149
rist Lang.....	Baker.....	Fallon.....	Sotddard.....	Skunk.....	4-12-66.....	6-148
llon County.....	Plevna.....	Fallon.....	Stoddard.....	Skunk.....	4-15-66.....	6-157
lelan Ranch.....	Plevna.....	Fallon.....	Stoddard.....	Skunk.....	4-15-66.....	6-158
d Moulett.....	Ekalaka.....	Carter.....	Stoddard.....	Skunks(2)....	4-18-66.....	6-159
eriff's Office.....	Broadus.....	Powder River...	.....	Skunk.....	4-26-66.....	6-166
ner Schmitt.....	Frazer.....	Valley.....	Newman.....	Skunk.....	5-18-66.....	6-229
ry Nagody.....	Wibaux.....	Wibaux.....	Aby.....	Bovine.....	3-13-67.....	North Dak.
iglas Gilger.....	Broadus.....	Powder River...	Buck.....	Sheep.....	3-24-67.....	South Dakot
rice Martin.....	Fairview.....	McKenzie,N.D...	Riek.....	Cat.....	5-12-67.....	6-115
is Rasmussen.....	Plentywood.....	Sheridan.....	Stokke.....	Skunk.....	5-22-67.....	6-122
wcroft.....	Billings.....	Yellowstone....	L.A. Larson.....	Bat.....	6-7-67.....	6-135
ley J. Hjort.....	Medicine Lake.....	Sheridan.....	Stokke.....	Skunk.....	6-26-67.....	6-174
Nile.....	Forsyth.....	Rosebud.....	Forsberg.....	Bat.....	7-31-67.....	6-263
safulli.....	Glendive.....	Dawson.....	Dyekman.....	Bat.....	8-5-67.....	6-288
lie Anderson.....	Dagmar.....	Sheridan.....	Kane.....	Skunk.....	8-5-67.....	6-273
man Fox.....	Billings.....	Yellowstone....	McGregor.....	Bat.....	8-15-67.....	6-312
din Police.....	Hardin.....	Big Horn.....	McCleery.....	Bat.....	8-17-67.....	6-332

SUMMARY OF POSITIVE RABIES CASES - 1964 through [illegible] -(Continued)

NAME	CITY OR TOWN	COUNTY	VETERINARIAN OR PHYSICIAN REPORTING	SPECIE	DATE SPECIMEN FORWARDED TO DIAG. LAB.	DIAG. ACCESS NUMBER
Oliver Gendreau	Scobcy	Daniels	Stokke	Badger	1-23-68	6-29
Elmer Espen	Westby	Sheridan	Stokke	Skunk	5-9-68	6-150
Bernard Wolff	Froid	Roosevelt	Bell	Skunk	5-17-68	6-156
Lionel Flynn	Oswego	Valley	Hopson	Skunk	6-5-68	6-181
Jose Flynn	Oswego	Valley	Connell	Skunk	6-11-68	6-190
Catherine Weinberg	Hardin	Big Horn	McCleary	Skunk	6-14-68	6-192
(Mice were negative at 28 days)						
Carl Welzenbach	Wolf Point	Roosevelt	Hopson	Skunk	6-28-68	6-218
	Havre	Hill	Timmons	Bat	7-5-68	6-222
Brensdal Bros.	Plentywood	Sheridan	Kane	Bovine	7-10-68	1-1191
Norton Johnson	Havre	Hill	Gordon	Bat	7-18-68	6-235
	Deer Lodge	Powell	Heaton	Bat	8-6-68	6-277
Big Sky Youth Ranch	Miles City	Custer	Ham	Bat	9-3-68	6-323
	Billings	Yellowstone	Zancanella	Bat	9-11-68	6-336
Frank Sparks	Baker	Fallon	Stoddard	Skunk	9-24-68	6-351
Keith Clawson	Plentywood	Sheridan	Fanelli	Skunk	12-11-68	6-428
Paul Schultes	Wolf Point	Roosevelt	Hopson	Skunk	1-8-69	6-3
Joe Morin(Fish & Wildlife Service)	Circle(Froid)	Roosevelt	James	Skunk	2-6-69	6-33
	Froid	Roosevelt	Bell	Skunk	3-3-69	6-46
Carl Elgestad	Scobey	Daniels	Scobey Sheriff	Skunk	6-11-69	6-167
Opheim A.F.S.Dispensary	Opheim	Valley	Connell	Cat	6-11-70	6-226
James Burnosni	Antelope	Sheridan	Kane	Bat	7-9-70	6-304
(FA stained slides prepared from the brain of this bat were negative; mice were inoculated intercranially with ground suspension of brain material; one mouse was found to be FA positive).						
Dale Morgan	Alzada	Carter	Hanify	Skunk	12-30-70	R-1996
(This skunk was submitted to the South Dakota Laboratory).						
Emil Ronning	Bainville	Roosevelt	Kreiger	Cow	2-5-71	291
(This cow was submitted to the North Dakota Laboratory by Dr. Kreiger of Williston, N. D.). Anita Angus Ranch						
Erling Osness	Pompey's Pillar	Yellowstone	Woerner	Skunk	6-1-71	6-249
Michael O'Connor	Missoula	Missoula	Michael O'Connor	Bat	10-7-71	Letter
(This silver-haired bat was submitted to the Rocky Mountain Laboratory, Hamilton. It died in captivity on 11-6-71 and was found to be rabid).						
Darrell Hanson	Ashland	Powder River	Sheets	Canine	12-5-71	6-642
Calvin [illegible]	Raymond	Sheridan	Lee	Skunk	6-13-72	6-259
George Lagrange	Raymond	Sheridan	Kane	Skunk	7-20-72	6-332
Harlo Haas	Outlook	Sheridan	Kane	Skunk	7-24-72	6-340
Chester Wirtz	Outlook	Sheridan	Kane	Skunk	8-1-72	6-359
Dell [illegible]	Three Forks	Gallatin	Rea	Bat	8-3-72	6-367
Harold Wiser	Zurich	Blaine	Baxter	Skunk	8-11-72	6-387

SUMMARY OF POSITIVE RABIES CASES - 1964 through re[illegible]t - (Continued)

NAME	CITY OR TOWN	COUNTY	VETERINARIAN OR PHYSICIAN REPORTING	SPECIE	DATE SPECIMEN FORWARDED TO DIAG. LAB.	DIAG. ACCESS NUMBER
John Balazis.....	Chinook.....	Blaine.....	Kellum.....	Bat.....	8-29-72.....	6-449
Brensdahl, Harold.....	Antelope.....	Sheridan.....	Kane.....	Skunk.....	3-26-73.....	6-136
Heisler, Ed.....	Raymond.....	Sheridan.....	Kane.....	Skunk.....	3-29-73.....	6-140
Brensdahl, Harold.....	Antelope.....	Sheridan.....	Kane.....	Skunk.....	4-4-73.....	6-150
Brensdahl, Harold.....	Antelope.....	Sheridan.....	Kane.....	Skunk.....	4-9-73.....	6-158
Brensdahl, Harold(Area)..	Antelope.....	Sheridan.....	Kane.....	Skunks(2)....	4-12-73.....	6-165
Bast, Frank.....	Coalridge.....	Sheridan.....	Kane.....	Skunk.....	4-13-73.....	6-171
Brensdahl, Harold(Area)..	Antelope.....	Sheridan.....	Kane.....	Skunk.....	4-17-73.....	6-178
Heisler, Ed(Area).....	Raymond.....	Sheridan.....	Kane.....	Skunk.....	4-22-73.....	6-183
Hulum, Cliff & Lee, K.C..	Flaxville.....	Daniels.....	Lee, K. C.....	Skunk.....	4-25-73.....	6-186
Lux, John.....	Chinook.....	Blaine.....	Baxter.....	Skunk.....	4-25-73.....	6-190
Bolles, Ralph.....	Coalridge.....	Sheridan.....	Kane.....	Skunk.....	4-26-73.....	6-194
Laney, John.....	Westby.....	Sheridan.....	Kane.....	Skunk.....	4-26-73.....	6-194
Obie Ranch.....	Chinook.....	Blaine.....	Baxter.....	Skunk.....	5-1-73.....	6-208
Wilbur Damstrom.....	Antelope.....	Sheridan.....	Kane.....	Skunk.....	5-7-73.....	6-223
Julian Christensen.....	Antelope.....	Sheridan.....	Kane.....	Skunk.....	5-7-73.....	6-223
Cartwright, A. J.....	Medicine Lake.....	Sheridan.....	Kane.....	Skunk.....	5-13-73.....	6-237
Morris Nielsen.....	Dagmar.....	Sheridan.....	Kane.....	Skunk.....	5-14-73.....	6-244
Vernon Melby.....	Dagmar.....	Sheridan.....	Kane.....	Skunk.....	5-17-73.....	6-246

EXPENDITURES - RABID SKUNK CONTROL

FISCAL YEARS 1964-73

FISCAL YEAR	DEPT. OF LIVESTOCK	FISH & GAME	COUNTIES	FEDERAL	SANITARY BOARD	TOTAL
1964	$2,199.40		$ 820.00	$ 994.71		$ 4,014.11
1965	$ 94.88		$1,194.20	$ 33.44		$ 1,322.52
1966	$4,033.00	$2,705.00	$2,791.00	$5,593.00		$ 15,122.00
1967		$2,078.00		$3,470.00	$11,694.00	$ 17,242.00
1968	$4,069.00			$2,014.00		$ 6,083.00
1969	$4,948.00			$2,138.00		$ 7,086.00
1970	$ 821.00			$ 295.00		$ 1,116.00
1971	$2,364.00			$1,050.00		$ 3,414.00
1972	$1,811.61			$ 200.00		$ 2,011.61
1973	$7,915.75					$ 7,915.75
TOTAL	$28,256.64	$4,783.00	$4,805.20	$15,788.15	$11,694.00	$ 65,326.99

April 1, 1973

TO: Wm. G. Cheney, Administrator
Brands-Enforcement Division
Department of Livestock
Helena, Montana 59601

FROM: Kenneth Seyler
Environmental Coordinator
Brands-Enforcement Division
Department of Livestock

SUBJECT: Rabies Investigation -
Harold Brensdal

COUNTY: Sheridan

LOCATION: Section 28 T35N R57E

LAND OWNER: Harold Brensdal

SITUATION: The Brensdal's investigated the cause of their dog's barking in the late evening on March 25, 1973. A skunk was chasing the dog and later ventured towards them. Mr. Brensdal obtained a gun and shot the skunk. The head was turned in to Dr. Kane, Veterinarian, in Plentywood.

POSSIBLE EXPOSURE: No people were exposed other than Mr. Brensdal in obtaining the skunk's head. The dog involved had been vaccinated for rabies.

SKUNK HABITAT: Strip farming interlaced with rock piles
Road culverts
Abandoned buildings
Shelter belts
Fence rows
Small sloughs and reservoirs
Pastures and roadways

FEDERAL LAND: None

INITIAL INVESTIGATION: All people living in the immediate area of the Brensdal farm were contacted and informed of the rabid skunk recently found. A search of their farm yards was made for skunk. Only the Alvin Christensen farm has been found to have skunk up to the time of this report. The immediate vacinity of the Brensdal farm was walked out. Very little skunk sign was found.

RECOMMENDATIONS

IMMEDIATE AREA

1. People be informed of rabid skunk finding and what precaution to be taken in order to insure their safety and that of livestock.
2. Farms and ranches be investigated for presence of skunk.
3. Trap or shoot any skunk found on the farms or ranches.

ON CALL REGION SHERIDAN COUNTY TWO WEEKS

1. Any skunk killed in Sheridan County be reported to the Sheriff's Office.
2. Any strange acting animal observed (domestic or wildlife) be reported to the Sheriff's Office.
3. Encourage dog and cat owners in Sheridan County to have their animals vaccinated for rabies at any of the clinics sponsored by Dr. Kane, Veterinarian, in Plentywood.

April 2, 1973

TO:	Wm. Cheney, Administrator Brands Enforcement Division Department of Livestock Helena, Montana 59601
FROM:	Kenneth Seyler Environmental Coordinator Brands Enforcement Division Department of Livestock
SUBJECT:	Rabies Investigation - Ed Heisler
COUNTY:	Sheridan
LOCATION:	Section 13 TS 37 N R 55 E
LAND OWNER:	Ed Heisler
SITUATION:	Mrs. Heisler investigated the cause of her dogs barking at 4:00 p.m. on March 28, 1973. A skunk was chasing the dog. Mrs. Heisler allowed the dog to enter and later obtained a gun and shot the skunk near the barn. Gary Clawson, a neighbor, took the head in to Dr. Kane, Veterinarian, in Plentywood.
POSSIBLE EXPOSURE:	The dog involved had been vaccinated for rabies.
SKUNK HABITAT:	Strip farming interlaced with rock piles. Road culverts Abandoned buildings (only a few) Shelter belts (only a few) Fence rows Small sloughs and reservoirs Pastures and roadways
FEDERAL LAND:	None

INITIAL INVESTIGATION: All people living in the immediate area of the Ed Heisler farm were contacted and informed of the rabid skunk recently found. A search of their farm yards was made for skunk. None were found. Very little skunk sign was found in the area except near some abandoned buildings.

RECOMMENDATIONS

IMMEDIATE AREA

1. People be informed of rabid skunk finding and what precaution to be taken in order to insure their safety and that of livestock.

2. Farms and ranches be investigated for presence of skunks.

3. Trap or shoot any skunk found on the farms or ranches.

ON CALL REGION SHERIDAN COUNTY TWO WEEKS

1. Any skunk killed in Sheridan County be reported to the Sheriff's Office.

2. Any strange acting animal observed (domestic or wildlife) be reported to the Sheriff's Office.

3. Encourage dog and cat owners in Sheridan County to have their animals vaccinated for rabies at any of the clinics sponsored by Dr. Kane, Veterinarian, in Plentywood.

April 24, 1973

TO: Wm. C. Cheney, Administrator
Brands-Enforcement Division
Department of Livestock
Helena, Montana 59601

FROM: Kenneth Seyler, Environmental Coordinator
Brands-Enforcement Division
Department of Livestock
Helena, Montana 59601

SUBJECT: Rabies Investigation Procedures

LAND OWNERS: Ed Heisler and Harold Brensdal

DATES CONDUCTED: March 30-April 12, 1973

COUNTY: Sheridan

OBJECTIVES:

1. To determine the distributionof Rabies in Sheridan County.

2. To determine the distribution and relative population of striped skunk within one township for each of the rabies cases.

3. To determine the percent of skunk (trapped or shot) with rabies within one township for each of the rabies cases.

PROCEDURES:

1. Farms and ranches in the immediate vicinity of the two rabies cases were investigated for presence of skunk.

2. Sheridan County was designated as an "on call region" for two weeks. All citizens in the county were asked to report any skunk killed or any strange acting animal (domestic or wildlife) to the sheriff's office.

3. Systematice time interval driving was conducted on the evenings of April 4-5, 1973 at 8:00 P.M. and 10:00 P.M. Driving courses ranged from 30-to 33 miles long within one township for each of the two rabies cases.

4. Eight traps were set near abandoned buildings baited with chicken eggs within one township for each of the two rabies cases from April 2-13, 1973.

RESULTS:

1. No skunks were found in any farm or ranch yards when investigated. One skunk was shot ¼ miles west of the Brensdal farm and diagnosed as rabid.

2. One additional skunk rabies case was discovered during the "on call period." (Frank East-2½ miles east of Coalridge.)

3. Systematic time interval driving produced eight skunk sightings in the southern half of the Ed Heisler township and zero skunk sightings in the Harold Brensdal township. Five skunk sighted in the Heisler township were shot and all proved negative for rabies.

4. The trapping program produced three skunk in the southern half of the Ed Heisler township and eight skunk throughout the Harold Brensdal township. None were positive for rabies in the Heisler township while three were positive in the Brensdal township.

5. Percent of skunk with rabies taken from the Ed Heisler and Harold Brensdal townships are as follows:

	Ed Heisler		Harold Brensdal	
	Number	% Rabid	Number	% Rabid
Shot	5	0	1	100
Trapping	3	0	8	37.5
Total	8	0	9	44.4

CONCLUSION: It would appear additional rabies cases in striped skunk may continue in the vicinity of the Harold Brensdal farm.

TRAPPING RESULTS OF TWO SHERIDAN COUNTY RABID SKUNK CASES
HEISLER-BRENSDAL AREAS
April 4-27, 1973

HERE SET	NUMBER OF TRAPS	SKUNK	RICHARDSON GROUND SQUIRREL	WILD HOUSE CATS	PORCU-PINES	FOX	MAGPIE	CROW	BADGER	COYOTE	NORWAY RATS	HAWK	TOTAL TAI SPEC
ear Water	13	2	0	0	0	0	0	0	0	0	0	1	1
ockpile	22	2	1	0	0	0	0	0	2	0	0	0	3
ush Patches	22	1	1	0	1	2	1	2	0	1	0	0	8
nce Rows	13	3	1	0	0	0	0	1	0	0	0	0	2
ad Culverts	23	1	3	1	1	2	2	0	0	0	0	0	9
elter Belts	6	0	0	0	0	0	2	0	0	0	0	0	2
andoned ildings	60	19	2	9	5	0	0	0	0	0	1	0	17
les	17	1	3	0	0	1	0	0	0	0	0	0	4
rgage Dumps	1	2	0	0	0	0	0	0	0	0	0	0	0
TAL	177	31	11	10	7	5	5	3	2	1	1	1	46

- Two of the 31 skunks trapped were diagnosed as rabid.

April 27, 1973

William G. Cheney, Administrator
Brands-Enforcement Division
Department of Livestock
Capitol Station
Helena, Montana 59601

Mr. Cheney,

Rabies Public Health Threat

The demonstration of nine rabid skunks in Sheridan County since March 26, 1973 indicates a serious public health threat. It is recommended that emergency measures be taken, by the most effective method possible, to immediately reduce the rabies vector animal population to provide maximum protection to both man and animals from exposure to rabies in Sheridan County.

Sincerely yours,

JOHN S. ANDERSON, M.D.
Director
Department of Health and
Environmental Sciences

JOHN W. SAFFORD, D.V.M.
Administrator
Animal Health Division
Department of Livestock

JSA/JWS/am

STATE OF MONTANA
DEPARTMENT OF LIVESTOCK
BRANDS-ENFORCEMENT DIVISION

TOM EVANS
CHAIRMAN
STANFORD

WILFORD F. JOHNSON
VICE-CHAIRMAN
HALL

WM. G. CHENEY
ADMINISTRATOR
RECORDER OF MARKS AND BRANDS

JESS BLANKENSHIP
CROW AGENCY

F. T. SAYLOR
CHOTEAU

ROBERT G. BARTHELMESS
MILES CITY

ROBERT M. SIMONS
TURNER

HELENA, MONTANA 59601
AC 406 449-2044

May 3, 1973

The Honorable Thomas L. Judge
The Governor of Montana
State Capitol
Helena, Montana 59601

Dear Governor Judge:

The Montana Department of Livestock, Brands-Enforcement Division is charged with the primary duty and responsibilities of formulating practical programs for accomplishing predator control objectives in all areas of Montana. Dr. John S. Anderson, Department of Health and Environmental Sciences and Dr. John W. Safford, Department of Livestock, Animal Health Division has recommended that emergency measures be taken, by the most effective method possible, to immediately reduce the rabies vector animal population (striped skunk) to provide maximum protection to both man and animals from exposure to rabies in Sheridan County.

Before emergency measures were recommended, the Brands-Enforcement Division conducted various programs for skunk reduction in Sheridan County. The Bureau of Sports Fisheries and Wildlife were contracted, in the past, to use strychnine lard baits for skunk reduction in a pre-determined area surrounding a rabid skunk case. These areas were generally three miles in radius. Since the February 8th, 1972 Executive Order prohibiting the Bureau of Sports Fisheries and Wildlife from continuing said program, the Department of Livestock, Brands-Enforcement Division has directed skunk reduction programs in Sheridan County.

On June 11, 1972, a rabid skunk entered the Calvin Syme farm chasing the family dog and was eventually shot by Mr. Syme. By the time authorization for usage of strychnine lard baits could be obtained, through proper governmental channels, a skunk reduction program in the immediate area of the Syme farm was not begun until July 14, 1972. With such an interim between the time of diagnosis and field control program initiation, the probable benefits of the skunk reduction program were questionable. On July 19 and July 21, 1972, two additional rabid skunk cases on the LaGrange and Hass farms were found within three miles of the area previously worked for skunk reduction on the Calvin Syme farm. It was determined, through investigative procedures (systematic time interval driving and questioning people in the immediate area regarding skunk sightings) that the relative population density of striped skunk in the two additional rabid skunk areas, were similar to the area reduced of skunk in the Calvin Syme rabies case. Therefore, a recommendation was made that a skunk reduction program in the LaGrange-Hass areas need not be implemented. On July 31, 1972, a rabid skunk was found in the town of Outlook four miles west of the rabid skunk cases not placed under a skunk reduction program. The rabid skunk case

in Outlook was worked with strychnine lard baits for the purpose of reducing the skunk population in the immediate area. No further rabid skunks have been diagnosed in the town of Outlook.

On March 25th and 28th, 1973, two rabid skunks entered the farm yards of Harold Brensdal and Ed Heisler respectively in Sheridan County. Both cases involved a rabid skunk chasing the family dog and later being shot by the land owner. An initial investigation of the two rabies cases by methods of systematic time interval driving, trapping and placing the county "on call" for citizens to report any strange or suspicious acting wildlife or domestic animal was conducted from March 30th to April 12, 1973. Eight skunk were taken in the Heisler area, none had rabies. Nine skunk were taken in the Harold Brensdal area, four had rabies. The conclusion was made that the relative population of striped skunk were similar in both areas, but that it appeared that striped skunk in the Harold Brensdal area may be infected to a higher degree with the rabies virus. 44.4% of the skunk taken in the Brensdal area were diagnosed as rabid. A recommendation was made and accepted that a trapping program for striped skunk be conducted in the immediate areas surrounding the Heisler and Brensdal farms. The objectives of said trapping program were (1) to reduce the skunk population in the immediate areas of the Heisler and Brensdal farms (2) to determine the percentage of skunk caught in traps to have rabies (3) to determine what trap sets in different skunk habitat are most successful.

This trapping program was conducted from April 10th to April 27th, 1973 through a joint effort of the Department of Livestock and Bureau of Sports Fisheries and Wildlife. Nine skunk were trapped in the Heisler area, one being rabid while eleven skunk were trapped in the Brensdal area, one being rabid.

During the trapping program three additional rabid skunks entered farm yards in Sheridan County chasing either the family dog, cattle or the land owner. Since these additional rabies cases were not in the immediate vicinities of the Heisler-Brensdal farms, it became more evident that rabid skunks may be distributed over the entire county. Within one month, eleven rabid skunk were found. This prompted Dr. Anderson and Dr. Safford's recommendation for emergency measures. The use of strychnine eggs to reduce skunk populations in the immediate vicinity of farms and ranches where a rabid skunk is found was recommended, but could not be immediately implemented because of governmental red tape. An emergency trapping program in the immediate areas surrounding rabid skunk cases is highly recommended from May 7th through June 30, 1973. Therefore, I respectfully request you as Governor of Montana to allow the Department of Livestock, Brands-Enforcement Division to propose an emergency budget for adoption to provide funds for carrying out this emergency program for the protection of domestic animals and man from rabid skunks.

The Board of Livestock, at a meeting held in Helena on May 1st, directed the Administrator of the Brands-Enforcement Division to make this specific request to your honorable office. The budget request as submitted should be allocated from the General Fund monies of the State of Montana due to the extreme importance of human health and livestock protection. A proposed budget is enclosed.

Very truly yours,

Wm. G. Cheney, Admn.
Brands-Enforcement Division
Dept. of Livestock

WC:bt
Enclosure

PROPOSED EXPENDITURES

SHERIDAN COUNTY
RABIES EMERGENCY TRAPPING PROGRAM
MAY 7-JUNE 30, 1973

TRAPPING PROGRAM

Man-days		64
Mileage		5000
		COST
Salary ($600. per month)	$	1800.00
Mileage ($.09 per mile)		450.00
Supplies (Trap stakes, canvas, eggs scent, traps, wire, rubber gloves, pliers, film & development, silting tray)		396.72
TOTAL	$	2646.72

SUPERVISION AND ADMINISTRATION

Man-days		12 3/4
Mileage		3000
		COST
Salary	$	546.00
Mileage		270.00
Per Diem		172.12
TOTAL	$	988.12

		2646.72
GRAND TOTAL	$	988.12
		3634.84

One full-time and one part-time trapper would be employed and supervised by the Department of Livestock from May 7th through June 30th, 1973 in Sheridan County.

Sheridan County will provide one vehicle and cover its expenses.

SHERIDAN COUNTY

RABIES TRAPPING PROGRAM
Ed Heisler-Harold Brensdal Cases
April 10-27, 1973

BUREAU OF SPORTS FISHERIES AND WILDLIFE

Man-days		16 5/8
Mileage		4,474
		COST
Mileage ($.09 per mile)		$ 229.59
Salary		450.04
Per Diem		241.75
Supplies		
14 dozen traps (.¼ Victor)		174.72
Eggs		9.00
	TOTAL	1105.10

DEPARTMENT OF LIVESTOCK

Man-days		12 3/4
Mileage		1,787
		COST
Mileage ($.09 per mile)		$ 160.83
Salary		546.00
Per Diem		172.12
Supplies (stakes, film, maps, etc.)		42.11
	TOTAL	$ 921.06
	GRAND TOTAL	$2026.16

This report includes the trapping phase of the Heisler-Brensdal cases only.

April 25,1973

TO: Wm. G. Cheney, Administrator
Brands-Enforcement Division
Department of Livestock
Helena, Montana 59601

FROM: Kenneth Scyler, Environmental Coordinator
Brands-Enforcement Division
Department of Livestock
Helena, Montana 59601

SUBJECT: Trapping program for reduction of striped skunk in the Ed Heisler and Harold Brensdal rabies areas.

I wish to express my concern regarding the trapping program for the purpose of eliminating further possible rabies cases in domestic animals and striped skunk in Sheridan County. Unforseeable problems have occurred regarding the safety and health of people living in the rabies exposed areas and particularly in the probable success of a trapping program in the reduction of skunk.

The possibility of human exposure seems to become a greater risk when people see animals caught in traps and investigate because of curiosity. Already to date, one high school boy (Bill Stadstad) was exposed when releasing a cat caught near an abandoned building. The boy was bitten and received four (4) rabies shots. The cat was luckily found after four days being released from the trap. Such an occurrence could have easily happened with domestic or wild animals and the consequences could be far more hazardous.

The relative success of the trapping program is very much limited to areas where people do not travel. Traps cannot be set near main roadways where skunk travel frequently through culverts. Abandoned buildings near main travel roadways cannot be trapped because of contact with people. Occupied farm yards when trapped for skunk become a serious problem with young children continually checking the traps. Weather is a primary factor when using steel traps and a prime example is of last week when only five of the eight trapping days were possible.

A JOINT RESOLUTION OF THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA RESPECTFULLY REQUESTING THE CONGRESS AND THE PRESIDENT OF THESE UNITED STATES TO ESTABLISH A NATIONAL RABIES WILDLIFE RESEARCH PROGRAM TO PROVIDE PROTECTION TO THE CITIZENS OF MONTANA AND OTHER STATES.

WHEREAS, the state of Montana has experienced wildlife rabies for many years and expects to continue experiencing wildlife rabies in the future, and

WHEREAS, the exposure of Montana citizens directly to wildlife rabies subjects these individuals to a traumatic experience of fear for life and the ordeal of receiving antirabies inoculations, and

WHEREAS, communities experiencing wildlife rabies make demands to state and local governments for control measures which may or may not alleviate the problem, and

WHEREAS, wildlife rabies is transmissible to domestic livestock and results in economic losses, and

WHEREAS, when skunk rabies occurs, Montana has carried out selective skunk populations suppression programs the results of which remain subject to many varying opinions and interpretations as to their effectiveness, and

WHEREAS, rabies in wildlife is a problem that involves several agencies of government making it difficult to define primary responsibility and coordination and cooperation between

agencies is necessary for adequate solution of the problem, and

WHEREAS, rabies in wildlife is a problem common to many of the contiguous states, Alaska and Canada and respects no political or administrative boundaries, and

WHEREAS, the department of agriculture's advisory council on rodents and rabid skunks having made a comprehensive review of rabies in wildlife find that more research is needed to obtain information to protect man and livestock from wildlife rabies:

(1) More information is needed on the epidemiology of wildlife rabies.

(2) More information is needed on the ecology of vector species having a high incidence of rabies.

(3) More effective, ecologically sound control measures must be developed.

(4) Finally, the council recommended that such studies should be initiated and coordinated by the federal government to provide for a standardized rational rabies control program.

NOW, THEREFORE, BE IT RESOLVED BY THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA:

That Montana respectfully requests the congress and president of the United States to provide the necessary manpower and funds to implement a national research effort on rabies and its control in wildlife, and

BE IT FURTHER RESOLVED, that Montana is desirous of

establishing animal control programs based upon scientific findings which do not adversely affect our environment but provide the methods to protect man and livestock from wildlife rabies, and

BE IT FURTHER RESOLVED, that a copy of this resolution be sent by the secretary of state of Montana to the United States congress through Montana's appropriate delegates and to the president of the United States, and

BE IT FURTHER RESOLVED, that a copy of this resolution be sent to the governor for his review and possible use in establishing programs to protect and assist the citizens of Montana, and

BE IT FURTHER RESOLVED, that the governor at his discretion may forward this resolution to other states for their review to establish and coordinate similar programs among states to achieve the purpose of this resolution.